

a conductive layer deposited on at least a portion of a surface of the capillary element, the conductive layer extending up to the second end of the capillary element. *102 Purcel*

*(S)* 3. (New) The microfluidic device of claim 2, wherein the conductive layer comprises a conductive stripe along a portion of a length of the capillary element. *102 Purcel*

4. (New) The microfluidic device of claim 2, wherein the conductive layer comprises a continuous layer around a circumference of the capillary element. *102 Purcel*

*Sub B1* 5. (New) The microfluidic device of claim 2, wherein the capillary element is attached to the body structure by the first end being inserted into an aperture in the body structure.

6. (New) The microfluidic device of claim 5, wherein the conductive layer is deposited along a portion of a length of the capillary element that extends to a point proximal to but not up to the first end of the capillary element. *Purcel et al*

7. (New) The microfluidic device of claim 2, wherein the capillary element is substantially rectangular.

8. (New) The microfluidic device of claim 7, wherein the capillary channel in the capillary element is substantially colinear with the at least one microscale channel disposed in the body structure. *102 Purcel*

9. (New) The microfluidic device of claim 7, wherein the capillary channel in the capillary element is substantially perpendicular to the at least one microscale channel disposed in the body structure. *102 Purcel*